

Mat. Med.

(1)

An Essay

on the

*Aratia Spinosa.*



PRIDLEAU

To: Thomas Gimbal Pridleau  
Charleston S.C. 1803

Mat. Med.



1811

1811

3  
Do  
E  
l  
Trustee  
Univ  
Ch

An

No. 1

Inaugural Essay,

For

the Degree,

of

Doctor of Medicine,

Submitted

To the Examinations

of

John McDowall LL.D. Provost,

The

Trustees and Medical Professors

of the

University of Pennsylvania,

By

Thomas Primball Pividian PRIDLEAU

8

Charleston South Carolina

page 3. Diagram



minutes of the

meeting

and minutes of the

minutes of the

minutes of the

minutes of the

minutes of the

the  
Per  
opportunities  
Medical  
there in  
nervous  
the inner  
ment as  
the bone  
kind at  
of these  
been not  
again are  
were the  
confined  
district; a  
Spinae,  
Subject of



An Experimental Essay on &c.

Perhaps no country afford a greater opportunity of increasing the Materia Medica than the United States of America; their indigenous vegetables are extremely numerous and to the lovers of natural history, the investigations must afford both amusement and instruction independent of the benefits which will result to Mankind at large. But few comparatively of these many useful plants have been noticed, the properties of others again are but partially known and even the little knowledge of <sup>most of</sup> them, is confined to a particular village or district; among the latter is the *Realia spinosa*, which I have chosen for the subject of the following pages.



The Botanical description of the  
Aralia is here taken from Michxaux.

Pentandra.

Pentagynia.

Aralia.

Involuc: umbella - Cal. 5 dentatus su-  
perius - Coroll: 5 petala - Bacca 5 Sperma.

Species

Spinosa.

Caule arborescente foliisque spinosis:  
foliis duplicato-pinnatis; foliolis leviter  
serratis: panicula ramosissima umbellis  
numerosis -

Habitat in Sylvis fertilibus Carolinae  
inferioris & Illinoisibus -

The Ar-  
range  
he found  
principal  
Swamps  
names  
Prickly  
the Me-  
seels, C  
quence  
also being  
fragments  
often he  
over also  
appearance  
the bolan  
picked  
one more  
those of  
to the he  
with sand

The *Aralia spinosa* has a very extensive range stretching from Lat.  $32^{\circ}$  to  $57^{\circ}$ , is to be found in rich soil and on the principle on the banks of rivers and swamps - the popular and vulgar names of it in the Southern States are Prickly ash, Subtle bark &c and in the Middle States also Prickly ash, Devil's Club, no name &c - the consequence of the common name Prickly ash being also given to the *Xanthoxylon fragrifolium*, the and the *Aralia* have often been mistaken for each other, the error also arises from the similarity general appearance of the two plants, but by the botanist they are immediately distinguished. The Spines of the *Aralia* S. are much more numerous than those of the *Xanthoxylon* f. It grows to the height of from 8 to 20 feet, does not send off branches until near its Summit

Summ  
rem g  
of ten di  
and i

Ch

9

of the  
immed  
the al  
3 Operat  
ter wh  
fluid  
which  
took  
ted w  
resin  
U  
from  
Staine  
dark  
pleas

Summit and then in Clusters - the root-  
run at right angles from the Caudex  
extending three or four feet superficially  
and in an horizontal direction -

### Chemical Analysis.

To an infusion of the inner bark  
of the root, I added a little alcohol,  
immediately a coagulation took place,  
the alcohol uniting to the water and  
separating from it the Gummy mat-  
ter which was held in solution. The  
fluid was then filtered, to some of  
which water was added and no change  
took place or no sediment was precipita-  
ted which would have occurred had any  
resinous particles been held in the solution.

Upon Evaporating a decoction made  
from the inner bark of the root, I  
obtained a considerable quantity of a  
dark extract of an agreeable odour and  
pleasant taste - On a small quantity

of this and  
and Iuf  
form here  
no other  
the alkali  
the color  
in the S.  
alkali

70  
 equal in  
 or much  
 in the  
 minutes  
 digested  
 adding  
 gum  
 perated

From  
that is t  
divers ma  
quantity



of this extract I poured some alkaliol  
and suffered it to remain for twenty  
four hours, at the end of which time  
no other change had taken place than  
the alkaliol having extracted a little of  
the coloring matter, the extract remained  
in the same state as when placed in the  
alkaliol, -

To another portion of the extract equal  
in weight to the former I added  
as much water as I had some alkaliol  
in the preceding experiment, in a few  
minutes the whole of the extract was  
dissolved leaving no sediment. Upon  
adding alkaliol to this solution the  
gummos matter was immediately se-  
parated and floated in the mixture.

From these experiments it appears  
that in the root very little if any re-  
sinous matter resides, and a considerable  
quantity of a gummos substance -



It preserves very little of the astringent  
a bitter principle, for upon adding either  
to the infusion or decoction, the oxy Sulphat  
or Iron or the Acetate of Lead, no change  
in the colour was produced, neither was  
any precipitate evident.

### §. Effects on the Human System.

Having prepared a saturated infusion of  
the inner bark of the root of the Anacard.  
two hours after a slight breakfast, I took  
a wineglassful - this produced no other ef-  
fect than a slight nausea with some  
little increase and fullness of the pulse,  
in 10 minutes, after taking the first glassful  
I took another which induced great nausea  
and slight vomiting with an increase of  
saliva and considerable sensation of acidity  
about the fauces, the pulse still contin-  
ued to rise and became more full and  
soft, great heat of skin and copious perspi-  
ration

The following is a list of the names of the persons who have been admitted to the office of the Secretary of the Board of Education, since the last meeting of the Board, at the City Hall, New York, on the 1st of January, 1864.

ADMISSIONS TO THE OFFICE OF SECRETARY OF THE BOARD OF EDUCATION, SINCE THE LAST MEETING OF THE BOARD, AT THE CITY HALL, NEW YORK, ON THE 1ST OF JANUARY, 1864.

ADMISSIONS TO THE OFFICE OF SECRETARY OF THE BOARD OF EDUCATION, SINCE THE LAST MEETING OF THE BOARD, AT THE CITY HALL, NEW YORK, ON THE 1ST OF JANUARY, 1864.

particular  
after  
dread  
head  
two  
I again  
peely  
plentiful  
wacrat  
at the  
file -  
dining  
but on  
after take  
operate  
time of  
The  
fetter, at  
a few  
friends

perspiration now came on - in 10 minutes  
after I took another glassful which in-  
duced free vomiting, skin warm, bones  
head ache and continuance of perspira-  
tion. In 10 minutes after the last glassful  
I again took another and vomited very  
freely, to assist the operation I now drank  
plentifully of warm water and completely  
evacuated the contents of my stomach  
at the same time throwing up some  
bile - The nausea induced by the me-  
dicine for continued for several hours  
but only slightly - At 10 o'clock one hour  
after taking the first dose it began to  
operate as a cathartic and for some  
time operated freely -

The pulse was most remarkably af-  
fected, at first highly stimulated and after  
a few minutes much depressed - My  
friends Messrs Lane, L. Mc Bride - Roland Hubrich  
attended



attended to it during the phre-  
nics -

at the time I took the first dose  
my pulse beat 84 strokes in a minute -

2 minutes 8. 10. 15. 20. 25. 30. 35. 40. 45. 50. 55.  
Strokes 85. 88. 92. 108. 96. 92. 88. 84. 78. 75. 76.

65. 70. 75. at which it continued until  
76. 78. 80.

12 o'clock and then gradually rose to 84 -

apt

12 o'clock Two hours after a slight breakfast I took  
2. 11.

gr of the powdered bark of the root of  
the Arabian - in 10 minutes after taking it

I experienced great nausea, increased  
secretion of saliva and acidity about  
the fauces. vomiting then came on at-  
tended with heat of skin and copious pers-  
piration - The vomiting continued for half  
an hour but the nausea continued slightly  
for two hours - During the operation I  
felt some headache, burning of the eyes,  
and thirstiness, which went off in a few  
minutes -

thus

The effort  
 great in  
 ment, for  
 the general  
 cause in  
 the world  
 in a  
 strikes in  
 moved for  
 in  
 strikes  
 Three  
 of the  
 Association  
 married  
 families in  
 \$10 which  
 double  
 quarters  
 as a  
 for three



The effects on the pulse were not so great in this as in the preceding experiment, probably owing to the smallness of the quantity and the almost-immediate onset induced - at the time of taking the pulse my pulse beat 84 strokes in a minute in 5 minutes it rose to 96 strokes in a minute at which it continued for 20 minutes and then fell to 80, in minutes 25. 35. 45. 60.  
Strokes 84. 78. 70. 80.

24th

Offshoot  
- 12.

Three hours after breakfast I took  $\rho$ -iv of the extract prepared by evaporating the decoction of the root of the Analis 1. This produced some nausea and increase of pulse in 15 minutes after I again took  $\rho$ -iv which in a short time induced considerable nausea and slight emesis - at a quarter before 12 o'clock it began to operate as a cathartic and continued operating for three hours - In a few minutes after

after the  
rose 15  
it cont  
then feel  
at which  
a then  
Mr. R  
notable  
the fine  
in a few  
more in  
mores w  
for some  
probatio  
when on  
a most  
berkings  
and few  
The  
to me  
McBride

McBride

after taking the medicine the pulse  
rose 15 strokes above the common standard,  
it continued at this for 20 minutes and  
then fell 10 strokes below the natural  
at which it continued half an hour  
& then rose to the common standard -

Mr. Richard Smith & myself <sup>mixed up our</sup> ~~some of~~  
<sup>noted</sup>  
the fine powder of the root of the Asafoetida.  
in a few seconds powerful emetic effects  
were induced and the discharge from the  
nares was very considerable, and continued  
for ~~several~~ three hours, - its stimulatory  
properties were very considerable; the powder  
when employed in this way will be found  
a most valuable addition to the class of  
emetics, being one of the most powerful  
and pursued with the greatest ease -

The following case communicated  
to me by my friend Mr. James Simpson  
McBride, will completely establish the

emetic

continued for  
 some time  
 more than  
 of his own  
 in an  
 past age  
 of his own  
 work in  
 rattle and  
 the inner  
 had heard  
 Indian  
 asked a  
 cured as  
 into him  
 before the  
 was defini-  
 cult, & he  
 agonies of  
 before his  
 and women

emetic properties of the Analia I. and likewise tend to show how far emetics may prove serviceable as remedies for the bite of Poisonous Reptiles.

In August & September 1794, Mr. Low  
Bestt aged 50 years of Williamsburgh County  
South Carolina while attending to his Slaves at  
work in an indigo field was bitten by a  
rattle snake (*Crotalus durissus*) a little above  
the inner ankle - recollecting that he  
had heard of the Analia I. being a celebrated  
Indian remedy for the bite of Serpents he  
ordered a decoction of the root to be pro-  
cured as soon as possible and to be poured  
into him until he should vomit freely.  
before the decoction could be procured he  
was deprived of speech, his respiration diffi-  
cult & he to all appearances in the  
agonies of death, it was not long however  
before his injunctions were complied with,  
and vomiting being induced gave him  
relief.

a continuation  
 very free  
 rified an  
 times he  
 diomed he  
 state for  
 In him  
 Claesmon  
 by a ratt  
 thrown in  
 of Mr. Sed  
 comes to  
 in a short  
 A w  
 a sort of h  
 employed  
 tents of h  
 lower con  
 certainly  
 with whi

for many relief, still he made signs for  
a continuance of the remedy, which operated  
very freely, as an emetic, cathartic & sudor-  
ific and in forty eight hours from the  
time he was fitted by the use of the me-  
dicine he was left in a convalescent  
state from which he soon recovered.

In June 1801 Mr. Daniel Carter of  
Claremont County, So. Carolina - was bitten  
by a rattlesnake; in a short time he was  
thrown into a situation similar to that  
of Mr. Scott, but by having immediate re-  
course to the same remedy, he experienced  
in a short time similar good effects.

A worthy infusion of the inner bark  
a sort of the Quinine is very generally  
employed as a remedy for the intermit-  
tents of the negroes in the middle and  
lower country of So. Carolina. From the  
certainty of its operation and facility  
with which it can be procured it is  
worthy





worthy the attention of slave owners -

Of an infusion <sup>from</sup> ~~of~~ the root - which macerated 12 hours ~~the~~ gives very decidedly emetic Cathartic and diaphoretic, and being given previous to the bark renders it more certain in its operation

When given exhibited with a view to its emetic operation the infusion in doses of a wineglassful given every 10 or 15 minutes will be found the most certain - on the borders of the root bark of the root in doses of from  $\frac{1}{4}$  to  $\frac{1}{2}$  - In many cases it may be substituted for Ipecac, it affords equal stimulus to the stomach, is mild in its operation & by far more pleasant to take than any emetic we are acquainted with - The Chief Operation of the Extract is Cathartic and if given with that view in doses of  $\frac{1}{4}$  to  $\frac{1}{2}$  will not doubt be found very beneficial -

For to make  
of such  
very in-  
opportunities  
a fruitful  
to man-  
tion and  
Perfection  
must re-  
frained  
for the  
received  
ple will  
will also  
want to

For the imperfection of this essay I shall  
make no apology, it has been the offspring  
of necessity not of choice; the subject is  
very interesting and had both time and  
opportunity offered I should have made  
a further investigation, as ~~the subject~~ is  
I must now submit it to the examina-  
tion and rely upon the Candour of the  
Professors for their decision - Of them I  
must request the acceptance of my un-  
feigned thanks, and sincere acknowledgements  
for the improvement & instruction I have  
received at their hands. I set an inestima-  
ble value on their labours and trust they  
will always enjoy that sweetest of all re-  
wards the applause of their own hearts.

ms. B.  
9.  
10000